

SUCCINCT  
PRACTICAL OBSERVATIONS  
ON  
THE EFFECTS  
OF  
BLOOD-LETTING,

CONTAINING  
AN INVESTIGATION OF THE PRACTICE OF  
GENERAL AND LOCAL ABSTRACTION  
OF BLOOD;

ALSO,  
HOW FAR LEECHES MAY BE EFFICACIOUS,  
INDEPENDENTLY OF THE EVACUATION  
THEY PRODUCE;

TO WHICH ARE ADDED,  
OBSERVATIONS ON VISCERAL INFLAMMATION  
AFTER PARTURITION.

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BY

*EDWARD GEOGHEGAN, M. R. C. S., I.*

Honorary Member of the Royal Medical Society, Edinburgh, &c. &c.

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"First follow nature, and your judgment frame  
By her just standard, which is still the same."  
Pope's Essay on Criticism.

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TO  
SIR HENRY HOLFORD, BART. M. D.

KNOWN TO THE AUTHOR ONLY AS DISTIN-  
GUISHED FOR ZEAL AND ABILITIES,  
IN THE CULTIVATION AND EXERCISE OF  
HIS LEARNED PROFESSION,  
AND IN WHICH  
HE HAS ATTAINED THE HIGHEST RANK  
WITH THE GENERAL CONSENT  
OF HIS BRETHREN,  
THESE BRIEF OBSERVATIONS ARE  
RESPECTFULLY INSCRIBED,  
BY HIS OBEDIENT SERVANT,  
THE AUTHOR.

*Brighton, 1833.*

THE HISTORY OF THE

REIGN OF KING CHARLES THE FIRST

BY SAMUEL JOHNSON

IN FOUR VOLUMES

LONDON

Printed by A. MILLAR

At the Sign of the Sun in Pall Mall

1720

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At the Sign of the Sun

THE profusion of publications on medical subjects at present would seem to discourage further attempts in the like course, but I am pledged to a detailed explanation of opinions respecting Blood-letting, having notified my intention to this effect, in a former publication\* the expectation of a work by Dr. Ml. Hall induced me to defer it; however, perceiving that some views which I deem essential, are untouched by this Author, in his valuable researches, and believing that material improvement will result from further discussion, I resume it; also I suggest a theory and practice (as applicable to many cases) which have not been advanced before, and regarding remedial means in general use, as well by the public without advice, as by Practitioners --- I have added a summary of observations, which I published about ten years back, on visceral inflammation, after parturition, containing views of that disease which, although not in accordance with those of able men,

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\* See page 89, of the Author's Work on the Use and Abuse of Mercury, &c. &c.

yet, I presume, that they are based on sound principles, and will ultimately prevail. In contesting the opinions of others, I have been anxious to observe a liberal feeling, and an unreserved and honest candour ; and in aiming at conciseness and perspicuity throughout, I hope for the indulgence of the Professional reader, who is aware how much the discussion of the complicated Laws of human existence encourages, and may require amplification.

## ON BLOOD-LETTING.

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**THE** remedial effects of measures which regulate the natural evacuations, and increase them in a large number of cases, are stamped with the approval of Practitioners, time immemorial. Blood is not of this class, there is no outlet for it, and its loss, accidentally, is hurtful---when excessive, it is fatal---its presence, in due quantity in every part, is essential to perfect function; animal heat, and all the materials of vitality and of regeneration, are imparted to the entire body through the blood, and of the blood: John Hunter believed it to be alive, and great deference is due to his luminous and penetrating genius; were it decided that his view is correct, it would lead to the expectation of being supplied with some standard by which to regulate blood-letting, that is very much wanted. However, enough is known to awaken atten-



tion to alterations likely to follow its abuse, immediately or remotely, and to remind us that nature intended its preservation ; there is a natural outlet for all the other fluids---there is none for blood---its quality is not impugned as noxious, like the fluids which are naturally ejected, and the retention of which occasions pain and injury, all pointing out this latter route, and the necessity of its being free, and the rather when offensiveness has been heightened by disease.

Hippocrates says, “ Whatever is to be evacuated, ought through the natural channels, to which nature mainly directs.” There are no such indications for the removal of blood, yet the frequency and extent of the practice of blood-letting would lead us to believe that the blood is in fault as to quantity or quality in almost every disease, the bane of health, the foul and overwhelming torrent that breaks down all the pillars of health and maintains almost every painful symptom, a portentous evil, to be lessened in quantity at all hazards, regardless even of measure.

Recollecting that the animal machine is endowed with a conservative power, which sustains health and combats disease, and that the increase of the latter is inversely as



the patient's strength, that a due proportion of blood is required in every part, as through its instrumentality the conservative principle works, by it often, alone, constitutional diseases, wounds, ulcers, fractures, &c. are cured; overbleeding, therefore, by abating the sanative process, must confirm the diseased state rather than remove it. I have witnessed this effect of the practice in ophthalmia, and iritis followed by much debility, whilst other cases of the same description, and many ailments which exhibited all the appearances of local inflammation, were removed without blood-letting. These facts led me to look more closely into the treatment, and to lay aside the practice which had not been successful, in similar instances; a public Dispensary and private practice afforded ample opportunities. Much experience has proved that my original views were correct, namely, that the curative powers, inherent in the constitution and in the part, were so enfeebled by overbleeding at all points by lancets and leeches, as to favour a diseased instead of a sound process, particularly in weakly habits, and such are usually the subjects of unmeasured depletion by leeches. Many approve of bleeding by leeches, in a state of debility, who disapprove of any blood being taken from the habit, and contend that the evacuation is

from the part only, a notion that recognizes separate and independent function, and this too pending inflammatory action, it is even laid down as a rule by a large number of practitioners ; but keeping in view that the entire mass is inclosed in tubes, and circulates through them, so that the smallest aperture any where gives it exit, and the mass is minus the quantity that escapes ; surely the removal of a pound or two of blood from a wound made by a lancet, or from thirty or forty wounds made by leeches, admits not of the distinction between local and general evacuation, and so far as injury from *diminished quantity*, both are alike objectionable. It is demonstrably true that blood taken from any part of the body, is taken from the whole.

Granting that general debility prevails, it follows that the disease, whatever appearance it assumes, partakes of debility not of strength, forbidding loss from the part on the very principle that forbade it from the habit. Inordinate action, pain, tumefaction, and redness, are often the effects of weakness and of nervous affections, and the rather when the prevalence of this state of the constitution is manifest ; this is important, because when failure is on the side of strength, the main remedy is in the repair, which intention

is counteracted by whatever reduces the conservative power, and this reduction is certain through the loss of large quantities of blood, whether from leech bites, or lancet wounds, never a moment without changing its place, it cannot be viewed as local, unless it is extravasated, a state one is led to think is supposed by those who lay great stress on the expression, evacuation from the part, but none from the constitution ; here the terms and appearances which characterize the disease, seeming to indicate the practice, fall under further observation, and are material ; the words inflammatory and plethoric convey the meaning to many that blood is in excess ; pain and throbbing also lead to the same view and treatment. I believe that much error arises from confounding inflammation with plethora ; they are not the same ; fulness to excess prevails in many persons, in whom there is no tendency to inflammation, and the fulness, together with weakness, are increased by loss of blood ; pain and throbbing, also, are often, from nervous irritation, the fallacy of the phrase, *ubi dolor ibi sedes morbi*, deludes too often ; pain prevails in numerous instances, independent of the sanguiferous system, of which invalids suffering by chronic complaints are aware. With respect to inflammation, and the properties of blood, waving the spe-



culations of ingenious Physiologists, and settling on points essential to practice, and easily understood, I would take the division of inflammatory action with vigor and the like state with debility. Aiming at the standard of health, reason and experience point to copious evacuations of blood, to abate too great power in the former, a practice that is contraindicated on principle in the latter, where there is deficient power, the symptoms in both are nearly the same.

Burns, cauteries of every kind, occasion extreme pain, and symptoms of inflammation; but the great feature that admits of loss of blood, namely, tonic power is absent, acrid contents of the viscera impart pain to contiguous and to remote parts by communication, consent and sympathy; nay, grief often causes pain. In all these there is no inflammatory action, and if the latter followed, it would be the effect of nervous irritation, remediable through the nerves, not by the removal of blood which might be deficient; determination to the part would cease with the irritation that occasioned it. Pain in the head and in all the cavities, proceeds very generally from the stomach, the great medium of sympathetic communication throughout the entire body. This point, is illustrated by drunkenness which exhibits every symptom of increased determination, quickened arterial action, inflammation, feverishness, and madness, congestion, &c. all apparently indicating the necessity of large bleedings, and particularly from

the head, yet it is never resorted to,—why? because we know the true seat of the symptoms is in the stomach;—it is there the offending cause is to be attacked, the limbs are enfeebled, and there is deficient power every where—all is feigned; abundant information has made us familiar with the cause of these symptoms, therefore we know they are not inflammation, but transient emanations; yet when symptoms precisely the same arise from concealed causes, such as acrid matters in the viscera, or an organic morbid state, which is gradually produced in that much abused organ, the stomach, and which it imparts through its extensive sway; also from mental affections, the practice too often is to bleed at the arm, by lancet, and the head by leeches, and wherever sympathetic ails are displayed, without measure, in many such cases there is debility, and a mere semblance of inflammation. Why this mistaken practice? it is because we are unacquainted with the true nature of the malady, its real source, and are deceived by appearances. Bleeding is often as injudicious here, as it would be in a case of intoxication.

To discover the real condition that may be remedied by loss of blood, I would separate pain from inflammation and distension; they are not necessarily connected, although, sometimes, they are incidentally. Cullen, and all our Nosologists,

attributed pain to irritation, to spasm, and to distension; the two first require sedatives; the last, évacuations, usually of blood, &c.: sometimes gentle stimulants are serviceable, particularly in feeble habits. Scudamore, a modern writer of ability, strongly recommends opium to relieve acute rheumatism; he judiciously combines it with medicine to keep open the bowels, kidneys, and skin. He objects to leeches in chronic rheumatism, and from experience prefers an evaporating lotion. Ophthalmia and iritis exhibit pain and much alarm; lest the loss of vision should speedily ensue, the appearances being inflammatory, encourage profuse bleeding generally, and locally, a practice advised by the respectable authority of the late Mr. Ware. I have treated many such successfully by one bleeding, in vigorous habits, to the amount of from sixteen to twenty-six ounces, which I never repeated unless the secretions were suppressed, active purgations by day, and sudorifics by night; sometimes I commenced with an emetic, and usually combined tartarized antimony with the purgative. I shall mention two cases, to shew the practical results in iritis. A gentleman of rather a robust frame, and middle age, suffered severe pain and privation of vision; some time before, he had a primary symptom of syphilis. I began with five grains of calomel, and the same of antimonial powder, to be repeated every sixth hour, until some active effect took



place, which followed the third dose ; six hours more were then intermitted, a blister was applied near the external angle of the Eye, gradual improvement commenced after forty-eight hours, and vision was perfectly restored in a fortnight ; speedy recovery induced his exposure to heavy rain, &c. soon after, which re-produced his former state ; I repeated the treatment with success, he lost no blood, but nutriment was strictly prohibited until pain had abated. Soon after I saw a gentleman similarly affected in every particular, whom I intended to have treated similarly, had the opportunity not been prevented by the employment of another practitioner, said to be distinguished for superior skill in Ophthalmic Surgery. Large bleedings from the arm, and topically by leeches, were practised repeatedly, but unsuccessfully, as impaired vision remains, and I believe much delicacy of constitution. I observed in conversation with the Practitioner who attended (some time after) and who told me of his practice that I thought he was over-bled, which might confirm the diseased state by enfeebling the local restorative power, (it is well known that vision is impaired by loss of blood in large quantities,) he answered that the patient was opulent, and perhaps would consult Practitioners in high station, most of whom would sanction large bleedings, as it was the general practice, and laid down by most modern writers as judicious in such cases ; but that he would not have been so sancti-

oned in the event of failure, had he not conformed to the routine. I have seen many cases in which leeches have added considerably to inflamed eyelids—an accident very likely in scrofulous habits; superficial observers treat such a state by renewal of leeches, still further increasing the mischief, thinking that blood enough had not been lost whilst any symptoms of irritation continued. I have known them applied to inflamed mammæ, and to relieve pains about the chest and sides, with temporary advantage apparently, but not with a removal of the complaint; I thought the want of success arose from the circumstance of the motion of the arm and of the trunk still keeping up the irritation; the tendons of the pectoral muscle and of the latissimus dorsi being inserted close to the articulation at the shoulder must drag and irritate, as every movement is communicated to the ailing spot when they act. Considering the space over which the last muscle is spread, its relations, and constant liability to action, it is easy to account why irritation once induced will be perpetuated if not increased, within the sphere of its action:—hence the leading indication of cure is uninterrupted rest, without which every curative means will be counteracted. I have known many instances of pain and irritation in these places greatly relieved by suspending the arm, and the observance of strict quiescence, which had derived no advantage from leeches. I have also seen the

latter applied to the limbs of workmen, and the usual exercise permitted: forgetting in all these cases the advantage—nay, the indispensable necessity of avoiding the *ledantia* in all cases,—the most efficacious remedies will be used to no purpose whilst an hurtful cause still feeds the morbid state: yet this is too little attended to—the discovery and avoidance of the producing cause of disease should be the great aim and object of the practitioner.

I was consulted about five years back on a case of retention of urine, and tumefaction in *perinco*, to relieve which a number of leeches had been advised a few hours before; on examination I found the bladder free from tension above the pubis—the pain in the tumor below, and none within the pelvis, thence I concluded that the urine had burst the urethra and formed the swelling, which the touch confirmed; I made an opening in the thinnest part, (which ought always to be sought), and let out a large quantity of urine. Ailments of this kind, also of tension, owing to confined matter, and to which leeches are applied, are not uncommon; I advert to them to shew still further the unnecessary use of leeches, even by those whose opportunities of practical information have been extensive; about the same time four Dispensary patients applied in the course of a month, with *hernia humoralis*; the treatment was purging five or six times per day, and an



opiate and diaphoretic at night; topically poultices of bran, preferred for its lightness, wetted with warm oxycrate, which soon proved successful; soon after a respectable person applied to me in a similar state: his frame was delicate, and his health under par; I advised the same internal remedies, and similar refrigerants topically, relief followed, but the pain returned, (a very usual circumstance), and he became impatient, which induced him to consult a Physician who usually attended his family: by his advice, but contrary to mine, twenty-four leeches were applied, and not only over the gland suffering irritation, but along the integuments up to the ilium, with such result that they were frequently repeated—still aggravating the symptoms and the patient's constitutional delicacy, who was under treatment treble the time that the paupers were, and suffered far greater pain; it is reasonable to infer that the bites of above an hundred leeches, and exposure to externals kept-up irritation on highly sensitive points, together with the attendant exhaustion from loss of blood, were more than sufficient to perpetuate the symptoms, and to protract recovery, particularly in a subject predisposed to be sensibly debilitated by irritation and profuse evacuation of any kind. I know that judicious men apply a few leeches in such cases, but I am well assured, by much observation, that they are not necessary;—in the robust, the loss of a pound of blood from the arm is far preferable, because it saves the highly-irritable part

from contact, and abates the usual sympathetic feverishness; afterwards an emetic of tartarized antimony will often accomplish recovery. Opium is particularly adapted, because it is an high degree of irritation that prevails not inflammatory action with vigour; we know that external violence quickly communicates an awful shock from this gland throughout the entire frame, many degrees more intense than the same force would inflict on any other part, except the stomach; holding in view the peculiar organization, extreme sensitiveness, and sympathetic influence of this gland, it appears at once that sedatives and a soothing plan, also the avoidance of external irritants, are indicated for allaying its painful sensations.

The late Dr. Armstrong, one of the most zealous advocates of the use of leeches, expresses himself thus, in his work on fevers:—"Eight or ten leeches applied to any part of the surface of the body, will rarely fail to reduce the force and and frequency of the pulse, in cases where general excitement does not seem to run high; and it is somewhat surprising, that I have frequently known the application of this number of leeches reduce the pulse more than a general venesection, though far more blood was taken away by the latter than by the former." Dr. Read, of Dublin, a very judicious observer, agrees with Armstrong, in a work on Fever, and says, "As soon as pain in any part

arises, or that it is excited by pressure, the stage of secondary re-action is to be expected, local bleeding, by means of leeches, now proves highly efficacious. I have had reason to imagine that the effect of leeches was far more powerful than could be accounted for by the quantity of blood alone which they drew from the patient ; this has been observed by Dr. Armstrong, and I have no reason to differ from his opinion." The first Author has influenced the practice of leeching more than almost any one of his brethren, by his writings, lectures, and example ; yet experience obliges him to acknowledge that this efficacy does not depend on the *quantity* of blood they draw off, although it is for this very purpose that he and every one else uses them. The numbers, eight or ten, often draw on average about six ounces—sometimes less, seldom more : a complement that would be laughed at as trifling, with a serious case, by most practitioners : pain is lessened, and morbid action controlled by the use of leeches, too few in number to remove enough of blood for such a change : this is acknowledged by two Physicians of ability, who bestowed particular attention to the point, and who strenuously recommend their use for the purpose of removing blood. The more closely these facts are examined, the more manifest it appears that the relief is not owing to the removal of blood, but to some other effect of their application : the question arises here—what are the effects of their



application, independent of letting out blood?— They sometimes produce erysipelas, tumefaction, &c. they frequently kill each other by severe biting; they have teeth which penetrate and contuse—active properties indeed, fully equal to counter irritation and revulsion, surely not to be overlooked, and particularly in a highly sensitive state of body; it is quite clear, that suction during an hour or longer, on a wounded surface may elicit and determine a morbidly increased action, from one place to another, and so gradually as an understimulus, as not to give much uneasiness; it is granted that painful sensations are transmitted, by consent and sympathy to and from remote parts, it follows that remedial measures will have influence by the same route. John Hunter contended, that no two actions could exist at the same time, an opinion in favour of the rationale I propose, namely, that leeches relieve pain by exciting an action which suspends, or supercedes the morbid one, and as the ultimate nervous filament is larger than the muscular it is much more exposed to the teeth of the animals, each has three; although the number of leeches mentioned by Dr. Armstrong drew little blood, they penetrated with between twenty and thirty teeth, over some space. Zypeus, a Physician of the last century, at Brussels, cautions against an accident from which he witnessed much mischief, namely, the teeth sticking in their own wounds after the leeches had fallen off.

I mentioned a case in a publication of mine already referred to, a few years back, of mortification produced by four leeches on an inflamed surface of loose cellular structure ; the instances of great effect from them as irritants are numerous ---deep seated pain has been relieved in many instances by acupuncture without drawing blood ---surely from sixty to an hundred teeth, a very common number, are far more likely to produce counter-irritation, still more powerful by the addition of suction ; and are as a concentrated acid compared with nitrate of silver, in a ratio of potency ; the impression of a few needles is slight indeed, yet it is sufficient, occasionally, to effect a curative end by counter-irritation, a circumstance that satisfactorily explains how the working of leeches might prove remedial of pain independently of their removing blood ; a moment's reflection on the collective actions of the venous and sanguiferous system, and that they are inseparable, points at once to an effect on both by leech bites, which may sensibly impress every part within the sympathetic range of the nervous filaments ; all these circumstances taken together convince me that the beneficial operation of leeches, in most chronic cases, of debilitated patients, is as counter-irritants, and the representations of Drs. Armstrong and Read are evidence on my

side---their very much prized practice of topical bleeding by leeches seemed to them, to owe its success to something besides the loss of blood, the former expresses surprise at the *general* effect of leeches, being greater than he observed when far more blood had been taken by venesection; the latter cannot account for the powerful effect of leeches by the quantity of blood alone.

Blood to the head has of late become as familiar an expression as bile in the stomach, and the use of leeches a common remedy when it aches, or the complexion is unusually florid, or drowsiness attends,---congestion is usually apprehended---it has always surprised me that this state is so much insisted on, the head is not near the great organ which propels the blood, the arteries which convey it are divided and take a winding course, the thyroid vessels arise from them and take a portion of their blood, the ascent also of this heavy fluid must retard its movement upwards to the head, whilst its weight favours its quick descent, as does likewise the capaciousness of the veins, and their direct course, besides the vitality of the blood, if allowed, must assist its movement downwards. I think that Dr. W. Philip's (whose labours I value) opinion, that deficient powers in the mem-



braneous canals cause congestion, is outweighed, by the reasons I advance ; keeping in mind the various and mighty functions of the organ, its liability to suffer through sensation, also by communication, consent, and sympathy, between it and the chylopoetic viscera, the diseased appearance, namely, blood to the head, may be readily accounted for ; why then wander out of so clear a road into the obscure and uncertain ways of conjecture ? There is nothing more evident within the range of ordinary observation than pain in the head from foulness in the viscera, it is also well known that mental emotion disorders both head and stomach, it exhilarates and increases the circulation, or depresses and retards it, all rendering abundantly manifest that the primary morbid impression is on the nervous system, not on the sanguiferous ; increased determination of blood to the head is secondary agreeably to the known laws of the animal economy, namely, that irritation is instantly followed by blood to the part in increased quantity ; it would be endless to trace the numerous, extensive and complicated ways, externally and internally, by which the head is acted on in the first instance, exclusive of reference to the blood.

When blood to the head is supposed to

constitute disease of the organ, instead of being the symptom of mischief elsewhere, what injudicious treatment are we not to expect, such as depletion of every kind, very much to the injury of many nervous ailments, instead of attacking the focus morbi, or allaying nervous irritation, or administering to a mind diseased.

Some Practitioners of discernment have informed me of deplorable instances of this mistake, in a few, dissection proved that no disease, of the description supposed, had existed; there had been no effusion of water, although the treatment was for hydrocephelus by large bleedings; one moderate bleeding early might be serviceable, whilst its repetition would be highly injurious, under the apprehension of that disease. Dr. Marshall Hall gives a case of a child treated for cerebral congestion, three leeches were ordered for the head, a medical student of whom the family thought highly reproved the practice as not active enough, and had the numbers doubled, much blood flowed, an alteration for the worse was soon evident, the pupil became dilated and motionless when exposed to light, which Dr. Hall attributed to deficiency in the circulation of the brain, which bleeding, in too great quantity, rendered still

worse, and insured the death of the child, with the symptoms of exhaustion, not those of oppressed brain; many instances of great injury from similar practice are given by this author. Many cases termed blood to the head have been communicated to me, in which it was abstracted by cupping, &c. from the back of the neck; the operation always afforded temporary relief, and therefore was resorted to periodically, but followed by debility and flabbiness, and must have abridged the duration of life, which is acknowledged to be the effect of the loss of blood frequently; every drop from the wounds by the scarificators flowed out of the whole habit as certainly as if it had been from the arm. Were the expression, blood to the head, to be expunged from medical phraseology, as a misname, we would be less apt to consider such appearances real diseases, and to fall into blunders which masked disease is so likely to occasion.

I am aware that there are Idiopathic diseases of the head—dissections have shewn them; I also believe that this state may follow sympathetic affections, long continued and maltreated, but I deny that the loss of blood is their chief remedy, why it is deemed so there is no well-founded reason; it is far less vascular than any other organ, and I have already observed that the rapidity of the blood's motion is moderated to it, &c.—it is symptoms that deceive; blisters have had, in



my practice, the best effect in many ailments within the cranium, also small doses of calomel, with antimonials, and sometimes of cicuta, hyocyamus, and occasionally of opium. Dr. Philip advises one-eighth of a grain of blue pill three times a day, which he has known to be often attended with sensible good effects, the largest dose he ever gives as an alterative is half a grain three times a day in chronic, and four times a day in acute cases, occasionally he combines henbane, he also observes that this quantity is equal to one-eightieth part of a grain of calomel. I have ordered half a grain of calomel and the same of opium, with one grain of antimonial powder every night, with surprising benefit, (although large doses of mercury had been often used to no purpose by the same patient,) for the relief of pain, in different parts of the body; indurated liver has yielded to it after many ounces of mercurial ointment had produced salivation, and all the injurious effects of mercury, yet without any impression on the disease for which it had been ordered. Small doses impair not the curative energy, whilst their remora in the habit is attended by a constant, gradual, and gentle action, and thus produce the change.\* Weak medicines and gentle management, in a state of feeble life, will effect much good, when the same mea-

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\* See Commentaries on the use of Mercury, so as to insure its successful effects, &c. by E. G.

surcs in greater force may defeat the intention and destroy. The liver is now-a-days said to be in fault in many ailments,—in most of them the constitution is debilitated : the general treatment advised is, to take blood out of the viscus, but none out of the mass of blood, on account of the prevailing debility ; leeches are applied to the surface along its course, often attended by the evacuation of much blood, but surely not ex directo from the liver as intended, this viscus is sustained by two ligaments, which do not convey blood to the parities of the abdomen, cellular substance, muscle, &c. are interposed, no reason to hope for connexion by anastomosis, there not being sufficient space for contact, whilst the veins run superficially and extensively, evincing positively the flow of blood from the system at large, from which the prescriber believed it was unsafe to remove any. Dr. James Johnson, in his late work, advises “mercurial frictions over the region of the liver, preceded by several repetitions of a smaller or greater number of leeches, according to the exigency of the case and strength of the patient, after ten days or a fortnight the leeches should be re-applied.” Whilst I think highly of this author’s talents, I deem it necessary to comment on advice so carelessly set forth, and so likely to lead to abuse ; the recommendation to remove blood is so strongly marked, by the frequent repetition at the commencement, and after ten days or a fortnight, a re-

newal of the leeches, that those who applied them are encouraged to promote loss of blood to great extent, and this from an invalid returned from an unhealthy climate, enfeebled by it and visceral disease : although my observations shew that I disapprove of the practice generally, I will not dispute the probable benefit of one bleeding preparatory to the use of mercury, but I object to the frequent repetitions ; it is to be regretted that all who advise leeches attend so little to quantity flowing from their wounds, as limitation is deemed important by all, when it flows from lancet wounds ; but Dr. Johnson, who generally shews the accerrimum judicium, so essential in a practitioner, is carried away by the sweeping routine which has at all times confounded and obscured the healing art. Huxham strongly noticed the mischief of general names and of routine practice. I beg leave to intreat Dr. J. whose opportunities of collecting, and of imparting information are abundant, to exercise his ingenuity more closely on the subject of leeching, and particularly to encourage the contrivance of a measure, the use of which will be a boundary, so as to ascertain the amount of blood from leech bites, also to prevent over-bleeding by them ; there is an hemorrhagic tendency in some persons, which renders it extremely difficult to restrain bleeding, compresses and ligature are scarcely sufficient in such to control the impetus of the fluid after venesection. Would not the danger be extreme after leeches

in such a patient ? Children have died from this cause.

Dr. Bateman, in a work of much character on contagious fever, a disease forbidding every thing debilitating, says, “very little observation of the comparative efficacy of the omission of even the same small quantity of blood freely, and at once from a well opened vein, and by its slow and partial exudation from the bites of leeches, or under the cupping glass, will be sufficient to convince any Practitioner of the great and decided superiority of the former. I am persuaded that even four ounces taken from a good orifice in the arm, produces more essential benefit, than twice the quantity dribbling away after either of these operations, the venesection is less fatiguing, and the actual loss of power which it occasions, is less considerably.” This experience of a practitioner of well known discernment, would be sufficient of itself to raise strong doubt of the propriety of the practice, to the extent it has been lately carried ; I used nearly the same observations before Dr. Bateman in my publication already referred to, &c. Leeches are said to be applicable to a state termed local congestion, that they unload the vessels, so as to allow of the recovery of power, but this effect is temporary, as they yield again to the force of the circulation, and unless frequently repeated (which would lead to the mischief of overbleeding,)



no permanent effect could be expected, and as additional means are always employed at the same time, and often equal to a reduction of size, the diminution cannot be attributed altogether to leeches; varicous veins exhibit the appearance of congestion, over-distention, and local determination, and seem to invite the application of leeches, but this state is not remedied by loss of blood, its spontaneous discharge has often taken place from them to excess, unattended by any permanent benefit.

Mr. Hall observes, "I have known several instances of the fatal issue of blood-letting, when this measure has been instituted as a preventive against the recurrence of symptoms of inflammation, which had been subdued by previous blood-letting;" the practice is very usual after accidents, to bleed largely, which I think ought to be regulated in manner following: if the pulse are sunk to give a little wine, and to wait until the pulse were raised in some degree, then to bleed to such extent as its tenseness, accompanied by the increase of power, seemed to demand, but if diminution of power succeeded, to stop the bleeding instantly, if re-action is violent, the operation must be repeated in a strong person suddenly removed from a state of health, but in one who is rather weak much caution should be used, lest the re-action might be deficient.

Reverting to diseased liver, when it is scrofulous,

a frequent case, bleedings often repeated, by any means, are highly objectionable, as experience shews that scrofula is usually accompanied by debility, and is remedied by tonic treatment, surely it must be aggravated when its seat is the liver, by the loss of blood in large quantities ; such habits are very liable to counterfeit ailments denominated subacute inflammation, supposed to require removal of blood from the part, but not from the general habit. Such is the prevalence of scrofula, and so many and various are the appearances it assumes, that it is impossible to characterize it. Structures which are totally different, suffer from its morbidity : the seemingly athletic, also the feeble, shew its symptoms, in the former, debility relatively as to health, often prevails ; where there is no appearance of scrofula externally, its secret working internally is often undiscovered, it is as fully characterized by irritation of the eyelids as by enlargement of the submaxillary glands, or an untractable disease of a joint ; experience instructs us to guard against debility, and to beware of depletion in treating it, in whatever form it is discovered ; the sanguineous evacuation, and free use of mercury, alike in acute inflammation of the liver as in its chronic affections, and also in the obstruction of its ducts, cannot be applicable, and scrofula as a cause seems to be entirely overlooked.

In a work on Sea Bathing, by Sir John Gibney,



it is very judiciously observed, that the *cold* bath is hurtful in the extreme to many scrofulous patients, for whom the *warm* bath is an invaluable remedy :—this distinction is important, as are many others of this experienced Physician, The accumulation of symptoms scrofula often exhibits, discountenances the opinion that it is a disease of the lymphatic system, that it is specific, or always hereditary, and encourages the opinion that it is general, of ordinary production often, and hereditary sometimes,—but common to all.

Mr. Hall gives many cases of serious evil from over-bleeding ; the like are observed by most practitioners of observation ; an instance fell under my remark a few years back, in which the abuse seemed very evident : a young gentleman, of a delicate habit, and manifestly scrofulous, was attacked with fever, and much pain in the head, he used active purgatives two days, on the third I saw him and advised a consultation, a Physician recommended that sixteen ounces of blood be lost, from which relief was obtained, on the following day the same quantity was lost, and the same effect seemed to have been produced, two days afterwards the bowels were confined, attended by much disturbance, flatulence, &c. with pain in the head, the Doctor advised leeches to the temples, to which I objected, stating that they might over-bleed, which, in the advanced stage would be dangerous, and

that enemas, and other purgatives, ought to be preferred, in the opinion that the pain was communicated to the head from the viscera, in a patient of delicate and scrofulous habit; the Doctor contended that the head was the seat of the disease, and the proper treatment to lessen its blood by leeches to the temples, which would be merely local—that he disapproved of further loss from the general habit, as there was much debility; leeches were used in this case to each temple, and bled freely, on his sitting up soon after to empty the bowels, syncope took place, manifest exhaustion followed, and fatality after a few days.

The course of reasoning I have pursued in the foregoing pages, respects the abuse of blood-letting, I shall now advert rather to its use; venesection has been sanctioned time immemorial, by the ablest men, every remedy so valued must be of great efficacy, and as whatever has the power of doing good, may also do harm, its suitable application requires the nicest discrimination—*nocet per se, prodest casu*. The only circumstance which, in my opinion, warrants blood-letting, is, as a substitute for the excretory functions, when they have failed, because the wonted expense of blood is thus prevented, hence it is accumulated and becomes in excess, so that the healthy balance is destroyed; whether the disease is original or contingent, our first business

should be to open the channels nature has established, if this course is impracticable, the mass of blood should be lessened, because of the constant accumulation, which is a state of disease.\* I hold it as fundamental, that as nature has left no outlet for the blood she did not intend it to be evacuated, but preserved for the purpose of affording supplies throughout the body, and in this way lessened; however, disease being an artificial state, we are compelled to use artificial means for its correction, but the latter ought, far as possible, to be avoided; still, our indications should be taken from nature, and as the removal of blood ought to be considered in lieu of natural evacuations derived from it, particular attention should always be directed to restoring the latter, calculating that after they had become free, a repetition of blood-letting would be unnecessary and hurtful.

The opinion of Dr. Blackhall, on Dropsy, and Dr. Watt, on Diabetes, do not impugn my view, because of the derangement of the functions of the skin and kidneys in these diseases being their chief feature. In many patients, the distance between a state of tone and the reverse, is very short; Dr. Barlow, of Bath, in a work on Bath Waters, dwells much on this last-mentioned point, and observes,

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\* It cannot be necessary to observe to the medical reader that the omenia forms no objection to this statement because of its appropriation, limitation to one sex, &c.



that, by supporting the strength and depletion nearly together, he has been very successful, and to which he requests particular attention ; the observations of a Practitioner of so much experience, and so highly qualified to avail himself of the abundant opportunities which his situation affords, are well deserving of attention ; indeed Bath is a very likely place to meet invalids exemplifying such fluctuating conditions ; my own view as to this latter practice has been in favour of early depletion, but against its repetition, relying chiefly on the regulation of the non naturals during the remainder of the treatment ; it is meet to observe, that most invalids lean always towards combating weakness, which they believe is effected by the frequent use of animal food, thus, they eat more in a week than could be converted into nutriment, in double the time, before a meal has been half digested, a fresh stratum is mixed up with it, and this too in a state of feebleness and of disease ; it is also customary to use warm bathing and to be in heated rooms, and soon after exposed to cold air, all which often produce ailments in weakly persons, apparently of an inflammatory character.

Reverting to the opinion I hold, that loss of blood is allowable at all only on the prin-



ciple of compensation, I would pause after one large bleeding, even in a state decidedly inflammatory, and resort to measures for restoring the excretory functions; the Plethoric bear bleeding ill, even in cases that are inflammatory. Dr. Wm. Philip attributes their intolerance of loss of blood, I think justly, to loss of power in the excretory system. M. Hall gives a case from Mr. Travers' work, of blood-letting for pneumonia suddenly succeeded by a stroke of palsy, which proved fatal the same evening; it is likely that painful irritation, not inflammatory action, prevailed here. Many cases are given by Dr. H. of the great mischief of bleeding unnecessarily, and of over bleeding, when a moderate quantity might have been curative; instances of the same description often fall under the observation of every Practitioner, all earnestly inculcating caution as to measure. When vital organs or large joints are inflamed, and exhibit tension, particularly in vigorous habits, large bleedings sometimes quickly repeated, as the lesser evil, must be practiced. I have been successful in such complaints by the use of antimonials, and starvation, and one bleeding only; in cases of plethora, accompanied by debility, the inflammatory state requiring blood-letting, rarely occurs, and when it does, very soon yields, the loss of a

small complement once only may not encrease the debility, yet it will lighten the load which weak powers are to move. I disapprove of leeches in addition to venesection by a lancet, on the ground that both together would endanger overbleeding ; if the seat of disease was in the cavities, and the subject debilitated, my chief reliance would be on counter-irritation applied as near as possible to the source of the nerves ; when the head, thorax, or abdomen, were affected, the irritation should be on the occiput cervical vertebræ, and on the spinal column, directly opposite the painful part internally, the effect is far more powerful, (as if the string was touched which communicated with the ailing spot) than if applied anteriorly ;---we know that an injury of the spine will impair the functions of the viscera of the abdomen and pelvis, yet the same cause will not produce the like injury when applied to the forepart, the great sympathetic nerve may be influenced through the spine, whereas minute and remote twigs only can be acted on through the forepart ; it is a mistake to apply vesicants, &c. near as possible to the place complained of by the patient, instead of near its corresponding nerves, membranes, &c: the near part, apparently, is often distant from the source of mischief ; the extensive sway of the great sympathetic gives reason to ex-

pect that ailments may be reached and controlled by its road in numerous instances.

The Committee of the French Institute, in their report on the experiments of Mons. Gallois, on the principle of life, state in conclusion "That the great sympathetic nerve arises from the spinal marrow, and that its particular character is to place the parts to which it is distributed under the immediate influence of the whole nervous power," it is said to be universal. Charles Bell observes, we cannot assign it a commencement---some Physiologists say, that the maintenance of the animal temperature is a function of the nervous system;---here lies an obvious course for the guidance of remedial measures; as in most cases the morbid impression has been on the nervous system and not on the sanguiferous, why, in the name of common sense, direct our remedial measures so very generally and actively to the latter and overlook the former, where the gravamen of the malady is. The diseases which are produced by the atmosphere and other externals, also by impaired digestion, and by mental affections are innumerable, and in all the blood is said by many to be in excess, which view is evident from the practice, namely\*---the removal of it by

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\* I have known a Practitioner in extensive business to order leeches for five out of every six cases he attended.



leeches, which still further enfeebles the feeble, yet leaves the focus morbi untouched. It was pointedly expressed by an ancient medical author, "*Solemne est hodie cum pluribus, in ipso consistere limine, pultaque intacta, Vitrum Lambere.*" Alluding to the injurious effects of mental anxiety reminds me of an able letter, on the Epidemick that prevailed in Ireland, a few years ago, by Mr. Philip Crampton, well known for talents of the highest class, in which is stated, that the celebrated Dr. Purcell, of Dublin, noticed in the course of long experience, that fever accompanied by mental anxiety was usually fatal.

Experience has confirmed my notions respecting counter-irritation. I direct it in diseases of the uvula, on the back of the neck; in affections of the chest, abdomen, and pelvis, on the spine as before mentioned, it is of great service in a complaint of children said to be chronic mesenteric inflammation, the application to them, should be discontinued immediately after a slight effect had been discovered, a caution of great moment; in all cases the irritation should be proportioned to the susceptibilities of the Patient. Leeches and blisters on the throat often fail of relieving inflamed uvula, in my opinion because of there not being a direct communication with the upper division of the head, where



the uvula is placed, whilst every part of this latter is likely to sympathize by continuity of integuments, membranes, &c. internally, and externally. Ignorant persons relieve this complaint by suddenly pulling a lock of hair at the back of the head so as to cause pain, this fact suggested to me early, the practice I recommend; as its posterior part may be reached through the nose, and one continuous membrane is common to those parts, I direct topical remedies to be drawn up like snuff, by the nostrils, until they have reached the disease, then to be ejected from the mouth, this is the only certain way by which it can be approached at its back part, because the act of gargling contracts the passage inside and closes up the opening into the lower part of the fauces, so that one side of the uvula and the pharynx are untouched by the application; syringing does not answer so well, because the fluid cannot be forced through the nose over the arch so as to reach the pharynx---the return by the mouth of that which had been drawn up by the nose shews that it had been where it was intended, if the passage was impervious to liquid vapour should be used; in chronic affections of this part much benefit is derived from covering the entire neck and chest carefully with flannel day and night, a seaton or issue

in the back of the neck is of great service in untractable cases ; I have rather dwelt here, induced by two cases I saw lately, which had been very obstinate and distressing.

With respect to the measures I think safe and efficacious for the prevention of inflammation when most to be dreaded, I give two cases:---An athletic youth fell from a high place on loose timber, and was severely bruised in almost every part, he felt as if all his bones were fractured, pain excessive, inability to move any part, or to suffer being moved by attendants, I directed him first to empty the bladder, and to withhold every thing from the stomach, even a drop of water, to which instruction he adhered strictly during four days, his tongue had been moistened occasionally with an orange, the parts where he felt the greatest pain were often fomented with tepid water, no further means were used, his distress gradually abated, no inflammation occurred, and his recovery was rapid ; by withholding nutriment together with every thing from the fountain of bodily excitement, the stomach, in the first instance, a state contrary to inflammatory was induced gradually, and the disturbance occasioned by purgation was avoided ; all the tendencies and aids to increased action were counteracted in limine,

A gentleman advanced in years, of a plethoric but not phlogistic habit, was struck violently by scaffolding which had been thrown against him by a sudden gust of wind, great pain throughout the trunk and privation of motion succeeded ; I treated him in the same manner as the former Patient with the like effect---much surprise was expressed that bleeding at least by leeches had not been applied in the latter case, as his plethoric state was evident, but I was aware of his previous debility occasioned by a constant practice of using large libations of punch, consisting of spirits and water, and sugar, daily, after dinner, therefore loss of blood would have injured him, by further reducing the conservative power ; the starving a short time, carefully watched, was calculated to effect the purpose intended, free from the danger of irrecoverably enfeebling the natural powers, which over bleeding, a very probable practice, after such an accident, might do. Starvation not only prevents the formation of additional blood, but hinders the distribution of the wonted energy imparted by the stomach to every part---“ *Jus ventriculi est universale per totum corpus*” was much observed by the Ancients. I know that restricted diet is always advised, but some of a mild kind is allowed, which keeps up the circulation and



energy in remote parts, in some degree ; bleeding from the arm and topically is a very general practice, as preventives of inflammation in extensive contusion. Marshall Hall dwells very judiciously on the danger of the practice before inflammation had been established. I have mentioned nothing of the pulse, or of the component parts of the blood, aware that our knowledge as to both has hitherto been a very uncertain guide,—the buffy coat being taken as characteristic of inflammation led to over-bleeding frequently, closer observation has proved that the appearance is fallacious ; the pulse also deceive ; in some persons the beat is different in one arm from the other, in many it is not in accordance with other symptoms with which it ought to correspond to complete the character of the disease ;—the feel of the skin often tells more : many respectable authorities are ample on this point,—I refer to them,—my purpose is to introduce opinions I have long entertained, and which have been unnoticed hitherto by authors.

It has appeared to me that joint cases are sometimes confirmed by excess of blood-letting. I approve of leeches in many cases of contusion, because the affection is purely local, and blood extracirculationem, also to hemorrhoids. In conclusion,—if it is granted that about twenty-eight pounds of blood is circulated through tubes which permeate



the most remote parts of the body, to the size of a hair, it follows that, whatever flows, the mass is lessened *pro tanto*. If it is granted, that what enters the mouth as food, finds its way to the finger's ends in the form of blood, it follows, that the quantity of the latter may be lessened by stopping the supplies at the mouth. If it is granted that there is a reciprocity in sensation and motion, between all parts, so that the slightest puncture anywhere may throw the whole animal machine into disorder, it follows, that remedial measures ought to be directed by a course so manifest; these last considerations being indisputable, how can the apparent benefits resulting from leeches, in many cases of an opposite character, be accounted for, unless on the principle I maintain, namely,—counter-irritation, &c. &c. which I believe is so advantageous as to counterbalance the injuries occasioned often through loss of blood by them.

The inattention to practical measures which the sympathies invite, (bearing so large a share in the animal economy,) is matter of great surprise, in the present blaze of medical science;—scarcely a ray of light falls on the broad way, and the paths marked out by the wisest of our predecessors as the surest, lie hidden and unexplored. The founder of medical science, and all the ancients, guided only by the observance of nature, deemed the sympathies the first object of study. Hippo-

crates says, “Nulla est enim pars incorpore adeo princeps quæ etiam infime, non consentiat unde vulgatum illud, concensus unus & conspiratio una & consentientia una, hancque opinionem confirmat exempla, nam venter capiti, caput carnibus & ventri morbum facit & reliquæ omnes & juxta eam dem rationem sibi ipsi, suas affectiones transmittunt & communicant.” Bailonus on epedemics, says—“In doloribus excitandis valet maximæ id quod dicitur totum corpus conspirare, ac confluere ut sepæ dolor alia in parte excitatur quam ubi primariæ causa sit.” Baglivi dwells on the sympathies, consent and communication by membranes, vessels, &c. I am persuaded that this part of the subject affords an opportunity of still further improving all our curative measures. I believe I omitted observing elsewhere, that in treating any acute case of danger, the prescriber of bleeding ought to be present to watch the effects, also to visit again after a few hours to judge of the re-action, as instructive towards further steps; this state may be deficient or excessive from debility, a very embarrassing circumstance, requiring more than ordinary skill to manage, as fatality might attend large depletion; in gastrodynia in aged persons, I have bled to the amount of five ounces when syncope occurred, I then stopped, and after a few hours repeated the bleeding to the same quantity, which was attended with relief; so alarming was the weakness at first, that I believe had more been taken the danger would have been imminent.

## ON VISCERAL INFLAMMATION, AFTER PARTURITION.

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A few years back medical enquiry was aroused by the occurrence of a great number of fatal cases of the disease termed puerperal fever, in an hospital which had been often visited by that calamity. I was induced by professional zeal to examine the subject closely, and in the month of december I visited some patients, a day or two after parturition, they laboured under pure intestinal inflammation; on enquiry, I learned that the physicians in attendance considered it contagious; the treatment was conducted by well-informed practitioners, and in accordance with the opinions of the most eminent of the profession, who decided that free ventilation was necessary to mitigate or subdue the contagion, also to abate an offensive and unwholesome smell, the mode of ventilation was by open windows at the top, apertures in the doors which communicated with a corridore, the windows of which were also open, a shaft or tube extended through the roof of the house as an additional

outlet to the foul air ; although the fires were strong, and the covering ample, it appeared to me that cold was in excess, on account of the season being winter, and the night air not being excluded ; this view having been considered erroneous by judicious men, I published these observations in its defence—after parturition there is usually much perspiration, also an high state of excitement, both inviting dangerous ailments, on exposure to cold, particularly in frosty or severe weather. Practitioners whose experience had been extensive, informed me that they scarcely ever met this puerperal disease in private, and it is very rare among the poor who are confined at home ; to discover the reason of this difference is very material in aid of this investigation :—the pre-disposing cause is the same at home as in the hospital,—in a rich and a poor female we are then to look to the remote causes,—see how patients who go to hospitals, and those who remain at home, are circumstanced : the former usually walk some distance with labour pains on them, so aggravating their condition that sometimes they have been delivered on the way, they reach the hospital exhausted by pain and exercise together, they suffer often from cold and damp, the feet are wetted, weakness and anxiety must attend, all disturbing the natural process, in this enfeebled state delivery takes place, should the temperature of the hospital be much lower than that she has been accustomed to, and exposure to



currents of cold air be permitted, and delivery take place on a damp couch, where many had been before, and if she walked, as some do, to bed bare-foot, we are supplied with abundant cause of inflammation of the viscera: they who are at home avoid the fatigue of walking, and relieve themselves from the labour pains by resting, the temperature of their apartment is warm, cold and damp are guarded against before and after parturition, a mild purgative is usually taken:—here the disease is almost unknown, by avoiding cold and increased fatigue, the attack is avoided; the symptoms in the living, and appearances on dissection, prove it to be inflammation of the viscera; there is evidence so far, there is none farther; why then look for a cause to contagion of which there is no proof, and pursue a practice which is dangerous in the extreme, in all conditions of body predisposing to visceral inflammation,—namely, unmeasured ventilation by cold air in winter. Dr. Pokal, Surgeon in chief to the Brunswick Legion, informed me, that more than four-fifths of those who lay in at the Milan hospital in 1816 died,—the situation is damp, and the wards like churches, and the humidity is increased within, by exposure to the external air. As the validity of my opinions were questioned, I have looked into many authorities to see what were theirs: I find it was observed to prevail in Paris in cold seasons. Ambrose Parey says, “Cold is the greatest enemy to lying-in women, bringing on painful fretting of the guts;

that doors and windows should be closed, the curtains kept drawn, and the body rolled around by such a ligature as will keep out the cold." Willis gives four fatal cases, which he attributes to cold and too gross food. Cruikshank thought it was caused by exposure to cold; Leake was of the same opinion. Dr. Armstrong says, as preventive of it,—“we should be particularly careful to prevent a current of air passing over the patient's bed.” Haller mentions a fatal case, produced by putting on a wet shift; Tissot says, that sleeping exposed to night air is generally mortal. Zimmerman attributes the great mortality in fever and inflammatory attacks, to cold nights succeeding hot days; Van Swieten expressed nearly the same. Munro, Pringle, and others, who carefully examined the means of preserving the health of soldiers, advise great caution as to the admission of air into hospitals, and strictly insist on the exclusion of night air. Cullen, and many such authorities, mention cold as a cause of fever, inflammation, and mortification. Pinel says, that insane persons often die from cold when affected with languor and debility, after violent and long-continued paroxysms; the state after child-birth is very similar. All these strongly support my views, so far as cold, &c. with respect to ventilation by the free and unmeasured admission of atmospheric air at all times; I contend that the practice is dangerous as a general rule, and that cold and damp air are not pre-

ventive of contagion, or of epidemics. It was noticed by Huxham, that during the epidemic disorders of 1728 and 33, that all who kept constantly in warm houses were very seldom attacked, also that they happened much sooner among country people. Sir George Baker, in a letter to Dr. Fothergill, on the epidemic of 1775, says, all who were confined by their occupations suffered little, that girls at schools were remarkably free from it. He also says, in the Transactions of the College of Physicians, on the epidemic of 1781 and 82, that female servants were nearly exempt, whilst very few of the males escaped, especially labourers in the field, also the inhabitants of the high grounds had it in its very worst form, those in the valleys escaped; it appeared first in the country,—of 700 boys in Christ-church Hospital, only 14 had it, and very slightly—all were kept within doors: it was at, and soon after, seasons of great inclemency. Dr. Wm. Heberden says, in the Philosophical Transactions, that in frosty and inclement weather sickness is generally increased, and that twice as many die as in warm weather: this conclusion was formed after years of observation, particularly in 1795 and 96,—the former severe and unhealthy, the latter warm and healthy; he also remarks that true scurvy was generated during the severe season; he says that heat is a real preventive of putrid fever, and cautions us against the danger of exposure to an inclement sky. Dr. Ferriar, of Manchester,



speaks of a pestilential fever in a regiment, where there was a constant and brisk ventilation; at Gibraltar, the fever of 1804 first shewed itself in an open square; that in 1810, half a mile out of town; in 1813, in a well-ventilated street in town:—the instances are innumerable of fevers of every description where there was the most free ventilation. Many scientific men believe that dry air does not convey contagion to any distance: Sir Robert Wilson's observations in Egypt led him to say, that a dry warm atmosphere was not only preventive, but remedial of the plague,—that internal inflammations are often produced by a blast of cold air, is matter of ordinary remark.

The publications of Hulme, Leake, White Young, Gordon, Hey, and Armstrong, exhibit opinions so various that no satisfactory conclusion can be drawn from them; they all use the term puerperal fever, and are decided that it is to be treated as contagious, putrid, &c. but there is no evidence of this, and a priori reasoning does not lead to it, therefore we ought not longer to entertain the term and view, but decide that it is a case of inflammation which suddenly attacked a debilitated female, this view will light the way and encourage appropriate practice, such as ventilation by warm air, &c. &c. I believe that as Typhus fever is accompanied by debility, and had been a long time considered an opposite state to



inflammation, the feeble pulse and prostration of strength attendant on the disease after child-birth, resembling the former, encouraged the opinion that the latter partook of the typhoid character, with which contagion, putrescence, &c. are associated. When we consider the debility induced by gestation still further increased by the fatigue of labour, and mental anxiety, symptoms similar to those which characterize typhus fever, may be easily accounted for, but they are essentially different, the former is inflammation suddenly induced on parts predisposed to it, and attended by feebleness protracted many months, the latter is general depression and derangement of all the functions often without local symptoms of an inflammatory description, and accompanied by sudden debility and deficient nervous energy—the puerperal disease is manifestly local in the first instance, and terminates rapidly like all acute inflammations of the intestines; the typhoid state often continues six times as long, and the stomach and head are seriously affected in general, whilst the latter is in many cases scarcely engaged at all in the puerperal; in five Patients whom I saw, the head was perfectly free, and the termination was fatal within two or three days. With respect to the treatment of the latter, local remedies should be promptly used, but as the secretions are nearly suppressed, blood-letting is advisable on the ground of compensation, in the

first instance, and because inflammation of important parts demand instant control, the quantity and effect to be carefully observed, as over bleeding would be dangerous on account of the debility; leeches are improper here as the quantity is uncertain and the effects very difficult to be ascertained, on account of the slowness of the evacuation in some, and its freedom in others, particularly in those of an hemorrhagic tendency, and of either there is no previous knowledge; the moment relief or exhaustion takes place, the bleeding ought to be stopped, as a counter-irritant, a blister is advisable over the dorsal and lumbar vertibræ, of about three inches in breadth, which is not to be continued, after its sensible effect, because such applications are debilitating, if they remain long on the sore they have produced; an enema every fourth hour of the mildest kind is well adapted, but internal medicines are objectionable before blood-letting; it has been recorded by experienced men that they are likely to produce an irritable and inflamed state, Doctor Gregory enumerate sacrid ingesta and violent cathactics among its causes. Tissot says the latter cause a fatal termination. Pemberton, a writer of much character on inflammation of the bowels, does not advise purgatives until the inflamed state had been checked. I have often given

tepid water in similar ailments, in the quantity of from four to six ounces every ten or fifteen minutes, for the purpose of fomenting the irritable stomach, also of diluting its acrid contents, and of hastening them downwards, it is preferable to gruel or any mucilaginous fluid being more misceable and penetrating; it is also hurtless, should it not prove serviceable; when acrid medicines fail, it is quite evident that their retention must aggravate the mischief exceedingly. I have known the worst effects from drastic purgatives before blood-letting, in many diseases, also from the loss of much blood together with acrid injections, blisters, &c. all at the same time, without regard to order, an inattention that may defeat the ablest advice---the seaman and soldier know well the indispensable necessity of order to the success of their operations---to the architect, it is alike important---were the materials of a building not arranged in suitable order, and bricks placed where timber should have been, and vice versa, or measurement or bulk disregarded, the design could not be accomplished, unless in appearance, but instability and demolition would soon follow the undue proportion.

Contemplating the finely wrought materials of the human fabric, the iralmost inscrutable



complications and Divine contrivances, and that life hangs upon their harmonious connexion, the danger is awful indeed when unseasonable and disproportioned means are applied to correct deviations from soundness. I fear that anxiety to check the progress promptly of the rapid and dangerous disease in question urges a departure from order and limitation often so as to destroy the effect of good measures and confound our notions as to the real nature of the disease. The sympathy between the feet and bowels proved by wetted feet causing disease of the latter, also the effect of tickling the soles evince the consent and quickness of communication with distant parts, and high degree of sensibility, and point to the use of fomentations of the extremities, which if long continued will relax the entire surface, restore the suppressed perspiration, and occasion a determination from the abdomen downwards. Baglivi mentions great success from heated bricks to the feet, and tells of a sculptor who suffered violent inflammation of his bowels from standing a long time on a cold stone.

In reference to the abuse of purging, my sentiments are so fully expressed by Dr. James Clark, in his work on Climate, that I shall give his own words :---“ I allude to the in-



discriminate use of mercury, in the form of calomel, blue pill, &c., and of irritating purgatives---this is a mode of treatment of which notwithstanding its general employment, I venture to say never yet cured a single case of dyspepsia, and I am satisfied that in this disease it has been, and continues to be, productive of incalculable mischief, more especially in females, in delicate constitutions generally, and in young children; it is true such practice sometimes affords temporary relief, more especially when it produces copious secretion from the liver, but when mercury is long continued, even in small doses, or frequently repeated in large doses, it very often fixes the disease in the mucous surface of the digestive organs, and through them excites an irritation on the whole nervous system that is never entirely removed." Again, he says, "Indeed, I may safely affirm that among the numerous cases of decayed constitutions which I met with among dyspeptic invalids, the larger proportion had suffered more from calomel and drastic purgatives than they would have done, I believe, from the disease if left to itself; calomel is a valuable remedy when used with judgment and discretion, but it is one of the most destructive agents of the *materia medica* in the hands of persons ignorant of its real operations." Elsewhere, "for the

removal of constipation, the milder laxatives are much safer and more effectual than the irritating drastic purgatives, drastics, even when given in the smallest doses, irritate the stomach and bowels, and in this way are often productive of more mischief than the state they are intended to obviate, which state their frequent repetition tends moreover to confirm. Castor oil, or confection of senna or manna, taken in such doses only, as are found sufficient to obviate costiveness are the best medicines," but he advises **Lavements** in preference. I have urged the same points in former publications, almost, totidem verbis, they cannot be too often impressed on Invalids. I have met numerous cases of pain in the head and irritation in the intestines, which I thought were perpetuated by pills, &c. to a very distressing degree, I advised an emetic at the commencement, and a glass of tepid water whenever the pain was felt, by which means the complaint was very frequently removed, the purgatives were always discontinued; a blue pill and black draught have of late become a family receipt, but a very dangerous one in unskilful hands. I saw a Gentleman at Bath of superior intelligence and education, swallow pills, (he carried with him,) together with warm malt drink and spirits, I supposed to help the stomach to convert what was noxious to it, into that which was wholesome, an effect very improbable, but the reverse not at all so—this abuse is not uncommon—Cave-

vexationem stomachi, is little attended to, from which neglect, innumerable ills are ever flowing—I am happy at the coincidence between Dr. Clark and myself as to the evils from indiscriminate purgation, his candour and veracity stamp additional value on a work of much research and discrimination.

With respect to ventilation so necessary in hospitals, and in the apartments of Invalids, its proper regulation is of the utmost consequence, particularly in our variable climate; in winter, the air should pass through an heated medium before it circulates,—the sedative effects of cold are imminently dangerous to all; to those enfeebled by disease it may be fatal: when the arterial action is weak, and no exercise used, its noxious effects are very probable. An erroneous view of the experiments of Dr. Fordyce, and Sir Charles Blagden, has led many into a misconception respecting the safety of exposing the body to cold just after its having been exposed to an high temperature: the following remarks of Dr. Currie, of Liverpool, afford a satisfactory explanation of the circumstance:—"The freedom from injury they experienced depended on the increased heat of the body, and the increased action of the arterial system, had they continued exposed naked to the cold air, until the heat sunk to its natural standard, and the heart and arteries subsided into their usual state of

action, their situation would have been very hazardous." It is related, that Alexander, who had been accustomed to cold bathing with benefit, on one occasion was seized with severe illness, and had nearly perished, after plunging into the Cydnus when over-heated, being fatigued and debilitated at the time, after a long and distressing march.

It is a mistake to consider the common air as always wholesome ;—as all waters partake of the nature of the soil through which they flow, so may the air be incidentally modified. Proximity of the Sea, Lakes, Marshes, Mountains, Cities, Forests, exhalations from Mines, &c. may render the air unfavorable to the human body, at times, and its free circulation through dwellings unsafe: to insure advantage from ventilation, the elements should be watched—windows opened during dry weather only, lest the furniture be imbued with humidity; the robust often suffer from the secret working of an east wind; what, then, has not the valitudinarian to dread—surely an aggravation of his ailments and counter-action of every curative measure during the adverse sway of this powerful agent: it is commonly remarked, that illness is produced by cold, damp, &c. but its occurrence from the ingress of air at home is rather unobserved. I have been successful in obviating relapses of inflamed eyes, throat, and chest, (to which persons had been subject,) solely by enforcing caution as to



ventilation; when the patient slept in an uppermost room, I have directed that the chimney be closed up, and an opening made in the door in lieu of it, to allow the respired air to escape, with great advantage to the invalid: my object was to avoid the almost immediate contact with the elements by fire places so situated; this contact is shewn by the descent of moisture, cold, &c. and smoke if fire is lighted. The practice of too many, in the ailments last mentioned, is to take blood by leeches, and use alterative courses, &c. overlooking the silent working of the elements as the cause of relapse or aggravation.

I advocate ventilation, but contend that its measured use is absolutely necessary, to ensure beneficial, and to escape hurtful results. Hippocrates says—"Air est rex & causa omnium morborum." Tissot thought that colds destroyed more than plagues. When the plague raged in Aleppo in 1718 and —19 the English kept out of the air, by shutting themselves up, and escaped the disease; although the causes of epidemics are not discoverable or controlable, the circumstance of safety from their effects, by avoiding the air, is instructive, inasmuch as it guides us out of the way that is injurious, and points to the source whence the unhealthiness springs; in vain will suitable remedies be applied if hurtful causes be not avoided concurrently:—there are practitioners who

seem entirely to forget the ledantia, yet boldly, but ineffectually and injuriously, apply the juvantia, this is of deep interest and deserves to be strongly marked by teachers and authors.

Entertaining the opinion that the puerperal disease is purely inflammatory, I contend that the air in cold weather ought to be carefully guarded against, as a primary object. The celebrated Whyte, of Manchester, said that no two authors described it alike; Accoucheurs say it is different in hospitals from what it is in private dwellings: some publications shew a difference between it in England and in Ireland, this discrepancy does not appear in their views of other diseases, and is much to be lamented in the present instance: the fate of a mother the moment she became one, enlists every feeling of humanity, and the treatment being overcast by doubt and indecision, presents an earnest claim on efforts towards its further elucidation.

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In my original pamphlet, signed "A Philanthropist," from which these pages are abridged, I urged the advantages of counter-irritation in visceral affections; also the necessity of caution as to bleeding, and particularly lest the inflammation should be erysipelatous.

*FINIS.*

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